

American Journal of Physiology: Lung Cellular and Molecular Physiology

No. 1. JULY 1999

EDITORIAL

- The first ten years of *AJP: Lung*
D. E. Rannels

L1

COMROE LECTURE

- EVE and beyond, retro and prospective insights
M. Rabinovitch

L5

- Rhinovirus-mediated changes in airway smooth muscle responsiveness: induced autocrine role of interleukin-1 β

H. Hakonarson, C. Carter, N. Maskeri, R. Hodinka, and M. M. Grunstein

L13

- α -Thrombin stimulates contraction of human bronchial rings by activation of protease-activated receptors

R. W. Hauck, C. Schulz, A. Schömig, R. K. Hoffman, and R. A. Panettieri, Jr.

L22

- Intracellular calcium oscillations induced by ATP in airway epithelial cells

J. H. Evans and M. J. Sanderson

L30

- Expression, pharmacological, and functional evidence for PACAP/VIP receptors in human lung

R. Bustos, I. Carrero, L. G. Guijarro, R. M. Solano, J. Zapatero, F. Noguerales, and J. C. Prieto

L42

- Enhancement of tumocidal activity of alveolar macrophages via CD40-CD40 ligand interaction

K. Imaizumi, T. Kawabe, S. Ichiyama, H. Kikutani, H. Yagita, K. Shimokata, and Y. Hasegawa

L49

- IL-4 induces ICAM-1 expression in human bronchial epithelial cells and potentiates TNF- α

I. Striz, T. Mio, Y. Adachi, P. Heires, R. A. Robbins, J. R. Spurzem, M. J. Illig, D. J. Romberger, and S. I. Rennard

L58

- Phosphatidylinositol 3-kinase mediates mitogen-induced human airway smooth muscle cell proliferation

V. P. Krymskaya, R. B. Penn, M. J. Orsini, P. H. Scott, R. J. Plevin, T. R. Walker, A. J. Eszterhas, Y. Amrani, E. R. Chilvers, and R. A. Panettieri, Jr.

L65

- Regulation of mouse SP-B gene promoter by AP-1 family members

Z. Sever-Chroneos, C. J. Bachurski, C. Yan, and J. A. Whitsett

L79

- Nitric oxide inhibits heterologous CFTR expression in polarized epithelial cells

T. Jilling, I. Y. Haddad, S. H. Cheng, and S. Matalon

L89

- Effects of depletion of neutrophils or macrophages on development of cigarette smoke-induced emphysema

A. F. Ofulue and M. Ko

L97

- Establishment of an immortalized fetal intrapulmonary artery endothelial cell line

M. C. Pace, K. L. Chambliss, Z. German, I. S. Yuhanna, M. E. Mendelsohn, and P. W. Shaul

L106

- Abnormal glutathione transport in cystic fibrosis airway epithelia

L. Gao, K. J. Kim, J. R. Yankaskas, and H. J. Forman

L113

- Control of cAMP in lung endothelial cell phenotypes. Implications for control of barrier function

T. Stevens, J. Creighton, and W. J. Thompson

L119

- Retrovirus-mediated HO gene transfer into endothelial cells protects against oxidant-induced injury

L. Yang, S. Quan, and N. G. Abraham

L127

Transcriptional activation and protein binding by two regions of the rat surfactant protein A promoter <i>E. Rosenberg, F. Li, C. I. Smith, S. R. Reisher, and S. I. Feinstein</i>	L134
Mechanical strain-induced posttranscriptional regulation of fibronectin production in fetal lung cells <i>E. Mourgeon, J. Xu, A. K. Tanswell, M. Liu, and M. Post</i>	L142
Hydrogen peroxide stimulates tyrosine phosphorylation of focal adhesion kinase in vascular endothelial cells <i>S. Vepa, W. M. Scribner, N. L. Parinandi, D. English, J. G. N. Garcia, and V. Natarajan</i>	L150
ERK activation protects against DNA damage and apoptosis in hyperoxic rat AEC2 <i>S. Buckley, B. Driscoll, L. Barsky, K. Weinberg, K. Anderson, and D. Warburton</i>	L159
Stretch induces cytokine release by alveolar epithelial cells in vitro <i>N. E. Vlahakis, M. A. Schroeder, A. H. Limper, and R. D. Hubmayr</i>	L167
Regulation of gelatinases in human airway smooth muscle cells: mechanism of progelatinase A activation <i>H. D. Foda, S. George, E. Rollo, M. Drews, C. Conner, J. Cao, R. A. Panettieri, Jr., and S. Zucker</i>	L174
Efficient killing of inhaled bacteria in ΔF508 mice: role of airway surface liquid composition <i>P. B. McCray, Jr., J. Zabner, H. P. Jia, M. J. Welsh, and P. S. Thorne</i>	L183
Fatty acid translocase/CD36 mediates the uptake of palmitate by type II pneumocytes <i>F. Guthmann, R. Haupt, A. C. Loosman, F. Spener, and B. Rüstow</i>	L191
Na ⁺ -K ⁺ -ATPase gene regulation by glucocorticoids in a fetal lung epithelial cell line <i>S. Chalaka, D. H. Ingbar, R. Sharma, Z. Zhou, and C. H. Wendt</i>	L197
Airway epithelial tight junctions and binding and cytotoxicity of <i>Pseudomonas aeruginosa</i> <i>A. Lee, D. Chow, B. Haus, W. Tseng, D. Evans, S. Fleiszig, G. Chandy, and T. Machen</i>	L204
Differential expression of platelet-derived growth factor-α receptor by Thy-1 ⁻ and Thy-1 ⁺ lung fibroblasts <i>J. S. Hagood, P. J. Miller, J. A. Lasky, A. Tousson, B. Guo, G. M. Fuller, and J. C. McIntosh</i>	L218

No. 2. AUGUST 1999

E-4010, a selective phosphodiesterase 5 inhibitor, attenuates hypoxic pulmonary hypertension in rats <i>N. Hanasato, M. Oka, M. Muramatsu, M. Nishino, H. Adachi, and Y. Fukuchi</i>	L225
Expression and activation of protein kinase C-ζ in eosinophils after allergen challenge <i>D. J. Evans, M. A. Lindsay, B. L. J. Webb, H. Kankaanranta, M. A. Giembycz, B. J. O'Connor, and P. J. Barnes</i>	L233
Regulation of alveolar macrophage-T cell interactions during Th1-type sarcoid inflammatory process <i>C. Agostini, L. Trentin, A. Perin, M. Faccio, M. Siviero, F. Piazza, U. Basso, F. Adamo, R. Zambello, and G. Semenzato</i>	L240
Surfactant secretagogue activation of protein kinase C isoforms in cultured rat type II cells <i>L. I. Gobran and S. A. Rooney</i>	L251
Effects of TNF-α and IL-1β on iron metabolism by A549 cells and influence on cytotoxicity <i>I. M. Smirnov, K. Bailey, C. H. Flowers, N. W. Garrigues, and L. J. Wesselius</i>	L257
Ablation of the SERCA3 gene alters epithelium-dependent relaxation in mouse tracheal smooth muscle <i>J. Kao, C. N. Fortner, L. H. Liu, G. E. Shull, and R. J. Paul</i>	L264
Immunotargeting of glucose oxidase: intracellular production of H ₂ O ₂ and endothelial oxidative stress <i>A. J. Gow, F. Branco, M. Christofidou-Solomidou, L. Black-Schultz, S. M. Albeda, and V. R. Muzykantov</i>	L271

Serotonin stimulates mitogen-activated protein kinase activity through the formation of superoxide anion <i>S.-L. Lee, W.-W. Wang, G. A. Finlay, and B. L. Fanburg</i>	L282
Asbestos exposure upregulates the adhesion of pleural leukocytes to pleural mesothelial cells via VCAM-1 <i>N. Choe, J. Zhang, A. Iwagaki, S. Tanaka, D. R. Hemenway, and E. Kagan</i>	L292
Urokinase-type plasminogen activator induces tyrosine phosphorylation of a 78-kDa protein in H-157 cells <i>G. J. Bhat, J. J. Gunaje, and S. Idell</i>	L301
P-selectin and ICAM-1 mediate endotoxin-induced neutrophil recruitment and injury to the lung and liver <i>M. Kamochi, F. Kamochi, Y. B. Kim, S. Sawh, J. M. Sanders, I. Sarembock, S. Green, J. S. Young, K. Ley, S. M. Fu, and C. E. Rose, Jr.</i>	L310
Mechanical ventilation of rat lung: effect on surfactant forms <i>J. Savov, R. Silbajoris, and S. L. Young</i>	L320
Pre- and postjunctional effects of inflammatory mediators in horse airways <i>M. A. Olszewski, X.-Y. Zhang, and N. E. Robinson</i>	L327
ATP hydrolysis during contraction of permeabilized airway smooth muscle <i>K. A. Jones, R. R. Lorenz, Y. S. Prakash, G. C. Sieck, and D. O. Warner</i>	L334
Mechanical strain increases velocity and extent of shortening in cultured airway smooth muscle cells <i>P. G. Smith, C. Roy, J. Dreger, and F. Brozovich</i>	L343
Analysis of genomic regions involved in regulation of the rabbit <i>surfactant protein A</i> gene in transgenic mice <i>J. L. Alcorn, R. E. Hammer, K. R. Graves, M. E. Smith, S. D. Maika, L. F. Michael, E. Gao, Y. Wang, and C. R. Mendelson</i>	L349
Infection of human respiratory submucosal glands with rhinovirus: effects of cytokine and ICAM-1 production <i>M. Yamaya, K. Sekizawa, T. Suzuki, N. Yamada, M. Furukawa, S. Ishizuka, K. Nakayama, M. Terajima, Y. Numazaki, and H. Sasaki</i>	L362
Ozone-induced acute lung injury: genetic analysis of F ₂ mice generated from A/J and C57BL/6J strains <i>D. R. Prows, M. J. Daly, H. G. Shertzer, and G. D. Leikau</i>	L372
Hormonal regulation and cellular localization of fatty acid synthase in human fetal lung <i>S. Wagle, A. Bui, P. L. Ballard, H. Shuman, J. Gonzales, and L. W. Gonzales</i>	L381
Interactions of keratinocyte growth factor with a nitrating species after marrow transplantation in mice <i>I. Y. Haddad, A. Panoskalsitis-Mortari, D. H. Ingbar, E. R. Resnik, S. Yang, C. L. Farrell, D. L. Lacey, D. N. Cornfield, and B. R. Blazar</i>	L391
Syntaxin 1A is transiently expressed in fetal lung mesenchymal cells: potential developmental roles <i>B. B. Brimhall, K. A. Sikorski, J. Torday, K. J. Haley, A. Shahsafaei, and M. E. Sunday</i>	L401
Adenovirus-mediated decorin gene transfer prevents TGF-β-induced inhibition of lung morphogenesis <i>J. Zhao, P. J. Sime, P. Bringas, Jr., J. Gauldie, and D. Warburton</i>	L412

RAPID COMMUNICATION

Vitamin A decreases the incidence and severity of nitrofen-induced congenital diaphragmatic hernia in rats <i>B. Thébaud, D. Tibboel, C. Rambaud, J.-C. Mercier, J. R. Bourbon, A. T. Dinh-Xuan, and S. L. Archer</i>	L423
--	------

No. 3. SEPTEMBER 1999

Chronic hypoxia alters effects of endothelin and angiotensin on K ⁺ currents in pulmonary arterial myocytes <i>L. A. Shimoda, J. T. Sylvester, and J. S. K. Sham</i>	L431
--	------

Angiotensin II activates MAPK and stimulates growth of human pulmonary artery smooth muscle via AT ₁ receptors <i>N. W. Morrell, P. D. Upton, S. Kotecha, A. Huntley, M. H. Yacoub, J. M. Polak, and J. Wharton</i>	L440
Nifedipine inhibits pulmonary hypertension but does not prevent decreased lung eNOS in hypoxic newborn pigs <i>C. D. Fike and M. R. Kaplowitz</i>	L449
15-HETE-substituted diglycerides selectively regulate PKC isotypes in human tracheal epithelial cells <i>S. E. Alpert, R. W. Walenga, A. Mandal, N. Bourbon, and M. Kester</i>	L457
ICAM-1-independent adhesion of neutrophils to phorbol ester-stimulated human airway epithelial cells <i>A. Celi, S. Cianchetti, S. Petruzzelli, S. Carnevali, F. Baliva, and C. Giuntini</i>	L465
Relative contributions of endothelial, inducible, and neuronal NOS to tone in the murine pulmonary circulation <i>K. A. Fagan, R. C. Tyler, K. Sato, B. W. Fouty, K. G. Morris, Jr., P. L. Huang, I. F. McMurtry, and D. M. Rodman</i>	L472
MAPK superfamily activation in human airway smooth muscle: mitogenesis requires prolonged p42/p44 activation <i>M. J. Orsini, V. P. Krymskaya, A. J. Eszterhas, J. L. Benovic, R. A. Panettieri, Jr., and R. B. Penn</i>	L479
Monocyte inflammation augments acrolein-induced Muc5ac expression in mouse lung <i>M. T. Borchers, S. Wesselkamper, S. E. Wert, S. D. Shapiro, and G. D. Leikau</i>	L489
Role of soluble metals in oil fly ash-induced airway epithelial injury and cytokine gene expression <i>J. A. Dye, K. B. Adler, J. H. Richards, and K. L. Dreher</i>	L498
Differential expression of stress proteins in nonhuman primate lung and conducting airway after ozone exposure <i>R. Wu, Y. H. Zhao, C. G. Plopper, M. M.-J. Chang, K. Chmiel, J. J. Cross, A. Weir, J. A. Last, and B. Tarkington</i>	L511
Endotoxin-specific NF-κB activation in pulmonary epithelial cells harboring adenovirus E1A <i>N. Keicho, Y. Higashimoto, G. P. Bondy, W. M. Elliott, J. C. Hogg, and S. Hayashi</i>	L523
Increased group IV cytosolic phospholipase A ₂ activity in lungs of sheep after smoke inhalation injury <i>T. Fukuda, D. K. Kim, M.-R. Chin, C. A. Hales, and J. V. Bonventre</i>	L533
Effects of reactive oxygen and nitrogen metabolites on MCP-1-induced monocyte chemotactic activity in vitro <i>E. Sato, K. L. Simpson, M. B. Grisham, S. Koyama, and R. A. Robbins</i>	L543
Effect of acrolein on human alveolar macrophage NF-κB activity <i>L. Li, R. F. Hamilton, Jr., and A. Holian</i>	L550
Potassium channels modulate canine pulmonary vasoreactivity to protein kinase C activation <i>S. A. Barman</i>	L558
Hypoxia downregulates tropoelastin gene expression in rat lung fibroblasts by pretranslational mechanisms <i>J. L. Berk, N. Massoomi, C. Hatch, and R. H. Goldstein</i>	L566
Participation of urokinase-type plasminogen activator receptor in the clearance of fibrin from the lung <i>N. Hattori, T. H. Sisson, Y. Xu, T. J. Desai, and R. H. Simon</i>	L573
SP-A enhances viral clearance and inhibits inflammation after pulmonary adenoviral infection <i>K. S. Harrod, B. C. Trapnell, K. Otake, T. R. Korfhagen, and J. A. Whitsett</i>	L580
Mitogen-activated protein kinase pathway mediates hyperoxia-induced apoptosis in cultured macrophage cells <i>I. Petrache, M. E. Choi, L. E. Otterbein, B. Y. Chin, L. L. Mantell, S. Horowitz, and A. M. K. Choi</i>	L589
Inhaled nitric oxide protects against hyperoxia-induced apoptosis in rat lungs <i>C. E. Howlett, J. S. Hutchison, J. P. Veinot, A. Chiu, P. Merchant, and H. Fliss</i>	L596

LPS-induced depolymerization of cytoskeleton and its role in TNF- α production by rat pneumocytes <i>N. Isowa, A. M. Xavier, E. Dziak, M. Opas, D. I. McRitchie, A. S. Slutsky, S. H. Keshavjee, and M. Liu</i>	L606
Enhanced expression of inducible nitric oxide synthase without vasodilator effect in chronically infected lungs <i>E. Cadogan, N. Hopkins, S. Giles, J. G. Bannigan, J. Moynihan, and P. McLoughlin</i>	L616
Collagen accumulation is decreased in SPARC-null mice with bleomycin-induced pulmonary fibrosis <i>T. P. Strandjord, D. K. Madtes, D. J. Weiss, and E. H. Sage</i>	L628
Inducible nitric oxide synthase in the lung and exhaled nitric oxide after hyperoxia <i>G. Cucchiaro, A. H. Tatum, M. C. Brown, E. M. Camporesi, J. W. Daucher, and T. S. Hakim</i>	L636
Chronic hypoxia abolished the postnatal increase in carotid body type I cell sensitivity to hypoxia <i>L. M. Sterni, O. S. Bamford, M. J. Wasicko, and J. L. Carroll</i>	L645
Actin reorganization in airway smooth muscle cells involves G _q and G _{i-2} activation of Rho <i>C. A. Hirshman and C. W. Emala</i>	L653

RAPID COMMUNICATION

Dexfenfluramine increases pulmonary artery smooth muscle intracellular Ca ²⁺ , independent of membrane potential <i>H. L. Reeve, S. L. Archer, M. Soper, and E. K. Weir</i>	L662
---	------

No. 4. OCTOBER 1999

INVITED REVIEW

Mechanical force-induced signal transduction in lung cells <i>M. Liu, A. K. Tanswell, and M. Post</i>	L667
--	------

Asbestos-induced phosphorylation of epidermal growth factor receptor is linked to c-fos and apoptosis <i>C. L. Zanella, C. R. Timblin, A. Cummins, M. Jung, J. Goldberg, R. Raabe, T. R. Tritton, and B. T. Mossman</i>	L684
--	------

CFTR involvement in chloride, bicarbonate, and liquid secretion by airway submucosal glands <i>S. T. Ballard, L. Trout, Z. Bebök, E. J. Sorscher, and A. Crews</i>	L694
---	------

PBA increases CFTR expression but at high doses inhibits Cl ⁻ secretion in Calu-3 airway epithelial cells <i>J. Loffing, B. D. Moyer, D. Reynolds, and B. A. Stanton</i>	L700
--	------

Abnormal lung growth and the development of pulmonary hypertension in the Fawn-Hooded rat <i>T. D. Le Cras, D.-H. Kim, S. Gebb, N. E. Markham, J. M. Shannon, R. M. Tuder, and S. H. Abman</i>	L709
---	------

Modeling the interactions of particulates with epithelial lining fluid antioxidants <i>H. Zielinski, I. S. Mudway, K. A. Bérubé, S. Murphy, R. Richards, and F. J. Kelly</i>	L719
---	------

cAMP stimulates Na ⁺ transport in rat fetal pneumocyte: involvement of a PTK- but not a PKA-dependent pathway <i>N. Niisato, Y. Ito, and Y. Marunaka</i>	L727
--	------

Keratinocyte growth factor stimulates bronchial epithelial cell proliferation in vitro and in vivo <i>P. H. Michelson, M. Tigue, R. J. Panos, and P. H. S. Sporn</i>	L737
---	------

Critical role of GSH in silica-induced oxidative stress, cytotoxicity, and genotoxicity in alveolar macrophages <i>Z. Zhang, H.-M. Shen, Q.-F. Zhang, and C.-N. Ong</i>	L743
--	------

Lung matrix incorporation of plasma fibronectin reduces vascular permeability in postsurgical bacteremia <i>M. Resnikoff, T. Brien, P. A. Vincent, R. F. Rotundo, E. Lewis, P. J. McKeown-Longo, and T. M. Saba</i>	L749
α -Adrenergic blockade restores normal fluid transport capacity of alveolar epithelium after hemorrhagic shock <i>M. Laffon, L. N. Lu, K. Modelska, M. A. Matthay, and J. F. Pittet</i>	L760
Inhibition of PARS attenuates endotoxin-induced dysfunction of pulmonary vasorelaxation <i>E. J. Pulido, B. D. Shames, C. H. Selzman, H. A. Barton, A. Banerjee, D. D. Bensard, and R. C. McIntyre, Jr.</i>	L769
Surfactant protein A enhances alveolar macrophage phagocytosis of a live, mucoid strain of <i>P. aeruginosa</i> <i>W. I. Mariencheck, J. Savov, Q. Dong, M. J. Tino, and J. R. Wright</i>	L777
Nitric oxide-induced reduction of lung cell and whole lung thioredoxin expression is regulated by NF- κ B <i>J. Zhang, L. W. Velsor, J. M. Patel, E. M. Postlethwait, and E. R. Block</i>	L787
Increased expression of calreticulin is linked to ANG IV-mediated activation of lung endothelial NOS <i>J. M. Patel, Y. D. Li, J. Zhang, C. H. Gelband, M. K. Raizada, and E. R. Block</i>	L794
Augmentation of eosinophil degranulation and LTC ₄ secretion by integrin-mediated endothelial cell adhesion <i>N. M. Muñoz, K. J. Hamann, K. F. Rabe, H. Sano, X. Zhu, and A. R. Leff</i>	L802
Inhibition of mucin release from airway goblet cells by polycationic peptides <i>K. H. Ko, C. J. Lee, C. Y. Shin, M. Jo, and K. C. Kim</i>	L811
Hydrogen peroxide decreases Ca ²⁺ sensitivity in airway smooth muscle by inhibiting rMLC phosphorylation <i>R. R. Lorenz, D. O. Warner, and K. A. Jones</i>	L816
Differential NF- κ B activation after intratracheal endotoxin <i>T. S. Blackwell, L. H. Lancaster, T. R. Blackwell, A. Venkatakrishnan, and J. W. Christman</i>	L823
Respiratory syncytial virus upregulates expression of the substance P receptor in rat lungs <i>G. Piedimonte, M. M. Rodriguez, K. A. King, S. McLean, and X. Jiang</i>	L831
Soluble guanylate cyclase gene expression and localization in rat lung after exposure to hypoxia <i>D. Li, N. Zhou, and R. A. Johns</i>	L841
Developmental shift in the relative percentages of lung fibroblast subsets: role of apoptosis postseptation <i>F. Awonusonu, S. Srinivasan, J. Strange, W. Al-Jumaily, and M. C. Bruce</i>	L848

No. 5. NOVEMBER 1999

Interleukin-11 attenuates pulmonary inflammation and vasomotor dysfunction in endotoxin-induced lung injury <i>B. C. Sheridan, C. A. Dinarello, D. R. Meldrum, D. A. Fullerton, C. H. Selzman, and R. C. McIntyre, Jr.</i>	L861
Expression of type II Na-P _i cotransporter in alveolar type II cells <i>M. Traebert, O. Hattenhauer, H. Murer, B. Kaissling, and J. Biber</i>	L868
Nucleotide-induced PMN adhesion to cultured epithelial cells: possible role of MUC1 mucin <i>S. Rounds, L. L. Likar, E. O. Harrington, K. C. Kim, A. Smeglin, K. Heins, and N. Parks</i>	L874
Hypoxia reduces airway epithelial sodium transport in rats <i>L. A. Tomlinson, T. C. Carpenter, E. H. Baker, J. B. Bridges, and J. V. Weil</i>	L881
Newborn intrapulmonary veins are more reactive than arteries in normal and hypertensive piglets <i>F. I. Arrigoni, A. A. Hislop, S. G. Haworth, and J. A. Mitchell</i>	L887

Threshold calcium levels for lamellar body exocytosis in type II pneumocytes <i>T. Haller, K. Auktor, M. Frick, N. Mair, and P. Dietl</i>	L893
Surfactant lipid uptake and metabolism by neonatal and adult type II pneumocytes <i>M. Griese, J. Beck, and F. Feuerhake</i>	L901
Antiproliferative effects of NO and ANP in cultured human airway smooth muscle <i>A. M. Hamad, S. R. Johnson, and A. J. Knox</i>	L910
Interleukin-10 inhibits pulmonary NF- κ B activation and lung injury induced by hepatic ischemia-reperfusion <i>H. Yoshidome, A. Kato, M. J. Edwards, and A. B. Lentsch</i>	L919
Activation of the EGF receptor signaling pathway in human airway epithelial cells exposed to metals <i>W. Wu, L. M. Graves, I. Jaspers, R. B. Devlin, W. Reed, and J. M. Samet</i>	L924
Glucocorticoids ablate IL-1 β -induced β -adrenergic hyporesponsiveness in human airway smooth muscle cells <i>P. E. Moore, J. D. Laporte, S. Gonzalez, W. Moller, J. Heyder, R. A. Panettieri, Jr., and S. A. Shore</i>	L932
Role of ERK MAP kinases in responses of cultured human airway smooth muscle cells to IL-1 β <i>J. D. Laporte, P. E. Moore, J. H. Abraham, G. N. Maksym, B. Fabry, R. A. Panettieri, Jr., and S. A. Shore</i>	L943
Production of superoxide and TNF- α from alveolar macrophages is blunted by glycine <i>M. D. Wheeler and R. G. Thurman</i>	L952
Effects of aqueous extracts of PM ₁₀ filters from the Utah Valley on human airway epithelial cells <i>M. W. Frampton, A. J. Ghio, J. M. Samet, J. L. Carson, J. D. Carter, and R. B. Devlin</i>	L960
Mechanical strain modulates maximal phosphatidylinositol turnover in airway smooth muscle <i>S. S. An and C.-M. Hai</i>	L968
Induction of fibrogenic mediators by fine and ultrafine titanium dioxide in rat tracheal explants <i>A. Churg, B. Gilks, and J. Dai</i>	L975
CCSP deficiency does not alter surfactant homeostasis during adenoviral infection <i>M. Ikegami, K. S. Harrod, J. A. Whitsett, and A. H. Jobe</i>	L983
Histamine alters cadherin-mediated sites of endothelial adhesion <i>M. C. Winter, A. M. Kamath, D. R. Ries, S. S. Shasby, Y.-T. Chen, and D. M. Shasby</i>	L988
Expression of C-type natriuretic peptide during development of rat lung <i>K. Nakanishi, F. Tajima, H. Itoh, Y. Nakata, N. Hama, O. Nakagawa, K. Nakao, T. Kawai, C. Torikata, T. Suga, K. Takishima, T. Aurues, and T. Ikeda</i>	L996
Bombesin-like peptides and receptors in normal fetal baboon lung: roles in lung growth and maturation <i>R. L. Emanuel, J. S. Torday, Q. Mu, N. Asokanathan, K. A. Sikorski, and M. E. Sunday</i>	L1003
Spatial and temporal aspects of calcium sparks in porcine tracheal smooth muscle cells <i>C. M. Pabelick, Y. S. Prakash, M. S. Kannan, and G. C. Sieck</i>	L1018
Induction of stress proteins in human endothelial cells by heavy metal ions and heat shock <i>M. Wagner, I. Hermanns, F. Bittinger, and C. J. Kirkpatrick</i>	L1026
Structural requirements for intracellular targeting of SP-C proprotein <i>S. J. Russo, W. Wang, C. A. Lomax, and M. F. Beers</i>	L1034
Attenuation of acute lung injury in transgenic mice expressing human transforming growth factor- α <i>W. D. Hardie, D. R. Prows, G. D. Leikauf, and T. R. Korfhagen</i>	L1045
Hyperthermia enhances cytomegalovirus regulation of HIV-1 and TNF- α gene expression <i>G. K. Iwamoto, A. M. Ainsworth, and P. L. Moseley</i>	L1051

Endothelial permeability and IL-6 production during hypoxia: role of ROS in signal transduction

*M. H. Ali, S. A. Schlidt, N. S. Chandel, K. L. Hynes, P. T. Schumacker,
and B. L. Gewertz*

L1057

No. 6. DECEMBER 1999

INVITED REVIEW

Lung glutathione and oxidative stress: implications in cigarette smoke-induced airway disease

I. Rahman and W. MacNee

L1067

-
- Superoxide anion impairs Ca^{2+} mobilization in cultured human nasal epithelial cells
T. Koyama, M. Oike, S. Komiyama, and Y. Ito L1089
- Fluid absorption related to ion transport in human airway epithelial spheroids
*P. S. Pedersen, N.-H. Holstein-Rathlou, P. L. Larsen, K. Qvortrup,
and O. Frederiksen* L1096
- Surfactant protein C in fetal and ventilated preterm rabbit lungs
G. F. Ross, M. Ikegami, W. Steinhilber, and A. H. Jobe L1104
- Autocrine production of matrix metalloproteinase-2 is required for human airway smooth muscle proliferation
S. Johnson and A. Knox L1109
- Quantitative trait locus mapping of airway responsiveness to chromosomes 6 and 7 in inbred mice
*G. T. De Sanctis, J. B. Singer, A. Jiao, C. N. Yandava, Y. H. Lee, T. C. Haynes,
E. S. Lander, D. R. Beier, and J. M. Drazen* L1118
- NADPH and heme redox modulate pulmonary artery relaxation and guanylate cyclase activation by NO
S. A. Gupte, T. Rupawalla, D. Phillipibert, Jr., and M. S. Wolin L1124
- Differential signaling pathways of HO-1 gene expression in pulmonary and systemic vascular cells
C. L. Hartsfield, J. Alam, and A. M. K. Choi L1133
- Developmental and glucocorticoid regulation of surfactant protein mRNAs in preterm lambs
R. C. Tan, M. Ikegami, A. H. Jobe, L. Y. Yao, F. Possmayer, and P. L. Ballard L1142
- Smoke extract stimulates lung fibroblasts to release neutrophil and monocyte chemotactic activities
*E. Sato, S. Koyama, A. Takamizawa, T. Masubuchi, K. Kubo, R. A. Robbins,
S. Nagai, and T. Izumi* L1149
- Human lung myofibroblast-derived inducers of alveolar epithelial apoptosis identified as angiotensin peptides
*R. Wang, C. Ramos, I. Joshi, A. Zagariya, A. Pardo, M. Selman,
and B. D. Uhal* L1158
- Regulation of connective tissue growth factor expression by prostaglandin E₂
D. A. Ricupero, D. C. Rishikof, P.-P. Kuang, C. F. Poliks, and R. H. Goldstein L1165
- Hyperoxia inhibits proliferation of Mv1Lu epithelial cells independent of TGF- β signaling
R. C. Rancourt, R. J. Staversky, P. C. Keng, and M. A. O'Reilly L1172
- SP-B refining of pulmonary surfactant phospholipid films
K. Nag, J. G. Munro, K. Inchley, S. Schürch, N. O. Petersen, and F. Possmayer L1179
- Neutrophils enhance clearance of necrotic epithelial cells in ozone-induced lung injury in rhesus monkeys
*D. M. Hyde, L. A. Miller, R. J. McDonald, M. Y. Stovall, V. Wong,
K. E. Pinkerton, C. D. Wegner, R. Rothlein, and C. G. Plopper* L1190
- Vascular inflammation inhibits gene transfer to the pulmonary circulation in vivo
*R. C. Tyler, K. A. Fagan, R. C. Unfer, C. Gorman, M. McClarion, C. Bullock,
and D. M. Rodman* L1199

TGF- β 3-null mutation does not abrogate fetal lung maturation in vivo by glucocorticoids <i>W. Shi, N. Heisterkamp, J. Groffen, J. Zhao, D. Warburton, and V. Kaartinen</i>	L1205
Resistance of hypotransferrinemic mice to hyperoxia-induced lung injury <i>F. Yang, J. J. Coalson, H. H. Bobb, J. D. Carter, J. Banu, and A. J. Ghio</i>	L1214
Inhaled NO reaches distal vasculatures to inhibit endothelium- but not leukocyte-dependent cell adhesion <i>A. Fox-Robichaud, D. Payne, and P. Kubes</i>	L1224

SPECIAL COMMUNICATION

Alveolar sodium and liquid transport in mice <i>P. Icard and G. Saumon</i>	L1232
---	-------

RAPID COMMUNICATIONS

Exacerbation of bleomycin-induced lung injury in mice by amifostine <i>L. A. Ortiz, J. A. Lasky, H. Safah, M. Reyes, A. Miller, G. Lungarella, and M. Friedman</i>	L1239
Fas-induced apoptosis of alveolar epithelial cells requires ANG II generation and receptor interaction <i>R. Wang, A. Zagariya, E. Ang, O. Ibarra-Sunga, and B. D. Uhal</i>	L1245



